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DN 137:352900

TI Selective anthranilamide pyridine amides as inhibitors of VEGFR-2 and

VEGFR-3

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SO PCT Int. Appl., 115 pp. CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

GΙ

PATENT NO. KIND DATE APPLICATION NO. DATE -----WO 2002090352 PΙ A2 20021114 WO 2002-EP4924 20020503 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG DE 10123574 A1 20021128 DE 2001-10123574 20010508 DE 10125294 A1 20021121 DE 2001-10125294 20010515 PRAI DE 2001-10123574 20010508 Α DE 2001-10125294 20010515 Α DE 2001-10164590 20011221 Α os MARPAT 137:352900

$$L = G CONHR^{1}$$

$$M = Q NHCH_{2}R I$$

$$CONH (CH_{2}) OH III$$

AB Title compds. I [G, L, M, Q = N, (un)substituted CH, ≤1 of them being N; R = (un)substituted N heterocycle; R1 = (un)substituted alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl] were prepared I are inhibitors of VEGFR-2 and VEGFR-3 and are used as medicaments for treating diseases that

are caused by persistent angiogenesis, such as psoriasis, Kaposi's sarcoma, restenosis, such as e.g. stent-induced restenosis, endometriosis, Crohn's disease, Hodgkin's disease, leukemia, arthritis, such as rheumatoid arthritis, hemangioma, angiofibromatosis, in eye diseases such as diabetic retinopathy, neovascular glaucoma, in kidney diseases such as glomerulonephritis, diabetic nephropathy, malign. nephrosclerosis, thrombic micro-angiopathic syndrome, transplant rejection and glomerulopathy, in fibrotic diseases such as hepatic cirrhosis, mesangial-cell proliferative diseases, arteriosclerosis, damage to the nerve tissue and inhibition of the re-occlusion of vessels after balloon catheter treatment, in vessel prosthetics or after the use of mech. devices for keeping vessels open, e.g. stents, as immunosuppressants, to support wound healing without scars and in cases of age spots and contact dermatitis. I can also be used as inhibitors of VEGFR-3 in lymphangiogenesis for hyperplastic and dysplastic changes in the lymphatic system. Thus, 2-amino-N-isoquinolin-3-ylbenzamide was treated with 2bromo-5-pyridinecarboxaldehyde, followed by carboxylaton and amidation to give the amide II. II had IC50 for inhibition of VEGFR-2 of 40 nM and for inhibition of cytochrome 450 isoenzyme 2C9 of 2.9  $\mu M$ .

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474798-53-3P 474798-54-4P
ΙT
                                  474798-55-5P
     474798-56-6P 474798-57-7P
                                  474798-58-8P
     474798-59-9P 474798-60-2P
                                  474798-61-3P
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                                  474798-67-9P
     474798-68-0P
                   474798-75-9P
                                  474798-76-0P
     474798-77-1P
                   474798-78-2P
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                                 474798-82-8P
     474798-83-9P
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     474798-86-2P
                   474798-87-3P
                                 474798-88-4P
     474798-89-5P
                  474798-90-8P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL
(Biological
     study); PREP (Preparation); USES (Uses)
        (preparation of
isoquinolinylcarbamoylphenylaminomethylpyridinecarboxamides
        as VEGFR-2 and VEGFR-3 inhibitors)
RN
    474798-53-3 CAPLUS
    2-Pyridinecarboxamide, N-[2-hydroxy-1-(hydroxymethyl)ethyl]-4-
[[[2-[[[3-
     (trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl]-
(9CI)
      (CA
    INDEX NAME)
```

$$CF_3$$
  $C_{-}$   $NH_{-}$   $CH_2-CH_2-OMe$ 

Absolute stereochemistry.

Absolute stereochemistry.

Absolute stereochemistry.

Absolute stereochemistry.

RN 474798-62-4 CAPLUS

CN 2-Pyridinecarboxamide, N-(2-hydroxy-2-methylpropyl)-4-[[[2-[[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl]
(9CI) (CA
INDEX NAME)

RN 474798-64-6 CAPLUS

CN 2-Pyridinecarboxamide, N-[2-(dimethylamino)ethyl]-4-[[[2-[[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ &$$

RN 474798-65-7 CAPLUS

Absolute stereochemistry.

RN 474798-77-1 CAPLUS
CN 2-Pyridinecarboxamide, N-[(1S)-2-hydroxy-1-methylethyl]-5-[[[2-[[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Absolute stereochemistry.

RN 474798-87-3 CAPLUS
CN 2-Pyridinecarboxamide, N-(3-hydroxy-3-methylbutyl)-5-[[[2-{[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]methyl](9CI) (CA
INDEX NAME)

Absolute stereochemistry.

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